

IN THE CLAIMS

In response to Examiner's rejection, Applicant herein cancels claims 1-10 and 20-29. Applicant requests examination proceed on previously presented claims 30-40 and newly submitted claims 41-49.

CLAIMS LISTING

1) - 29) (CANCELLED)

30) (Previously Presented) A stalk roll for a corn harvesting header, the stalk roll comprising:

- a) a cylindrical shell having a central longitudinal axis;
- b) longitudinal integral flutes extending radially from the shell, the flutes are substantially parallel to the central longitudinal axis, each flute is provided with a knife edge, each knife edge has a leading surface and a trailing surface, said leading and trailing surface forming an acute angle; and,
- c) means for mounting the shell to a drive shaft of a corn harvesting header.

31) (Previously Presented) A stalk roll as defined by claim 30 wherein the cylindrical shell is provided with six flutes.

32) (Previously Presented) A stalk roll as defined by claim 31 wherein the cylindrical shell comprises two semi-cylindrical pieces, each semi-cylindrical piece having three flutes.

33) (Previously Presented) A stalk roll as defined by claim 32 wherein the means for mounting comprises at least two bolt holes formed in each semi-cylindrical piece and associated bolts for clamping the semi-cylindrical pieces about the drive shaft of the corn harvesting head.

- 34) (Previously Presented) A stalk roll as defined by claim 30 wherein each knife edge is self-sharpening.
- 35) (Previously Presented) A stalk roll as defined by claim 30 wherein the trailing surface is coated with tungsten carbide.
- 36) (Previously Presented) A pair of adjoining stalk rolls for a corn header, the adjoining stalk rolls defining a harvesting gap, each stalk roll comprising:
a cylindrical shell having a central longitudinal axis;
longitudinal integral flutes extending radially from the shell, the flutes are substantially parallel to the central longitudinal axis, each flute is provided with a knife edge, each knife edge has a leading surface and a trailing surface, the leading surface forming an acute angle with the trailing surface; whereby the flutes of the pair of adjoining stalk rolls are offset to one another.
- 37) (Previously Presented) A pair of adjoining stalk rolls as defined by claim 36 wherein each knife edge is self-sharpening.
- 38) (Previously Presented) A pair of adjoining stalk rolls as defined by claim 37 wherein each of the cylindrical shells is provided with six flutes.
- 39) (Previously Presented) A pair of adjoining stalk rolls as defined by claim 36 wherein each cylindrical shell comprises two semi-cylindrical pieces, each semi-cylindrical piece having three flutes.

- 40) (Previously Presented) A pair of adjoining stalk rolls as defined by claim 38 wherein the opposing flutes are tapered.
- 41) (New) A pair of adjoining stalk roll as defined by claim 40 wherein each knife edge is self-sharpening.
- 42) (New) A pair of stalk rolls as defined by claim 41 wherein the trailing surface is coated with tungsten carbide.
- 43) (New) A pair of adjoining stalk rolls as defined by claim 36 wherein said knife edges have a forward slope relative to the direction of rotation of each of said stalk rolls.
- 44) (New) A pair of adjoining stalk rolls as defined by claim 43 wherein said knife edges of said opposing flutes have a predetermined surface slope and the angle of said slopes of opposing flutes are identical.
- 45) (New) A pair of adjoining stalk rolls as defined by claim 44 wherein said opposing flutes are tapered along the length of said stalk rolls.
- 46) (New) A pair of adjoining stalk rolls as defined by claim 45 wherein the opposing flutes intermesh.
- 47) (New) A pair of adjoining stalk rolls as defined by claim 46 wherein the radius of the opposing flute surfaces is reduced in discrete increments along the length of said stalk rolls.
- 48) (New) A pair of adjoining stalk rolls as defined by claim 47 wherein the opposing flutes surfaces have a plurality of radii along the length of the stalk roll.

49) (New) A pair of adjoining stalk rolls as defined by claim 36 wherein said flute edges are tapered along the length of said stalk rolls to decrease the width of the gap between said opposing stalk rolls.